

VALERIE J. HARWOOD
CURRICULUM VITAE: 2007

University of South Florida
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EDUCATION

1992 **Ph.D.** in Biomedical Sciences. Old Dominion University and Eastern Virginia Medical School.
1983 **B.A.** in Biology. State University of New York at Plattsburgh
1980 **B.A.** in French. Iowa State University

ACADEMIC POSITIONS

2004- Associate Professor, University of South Florida Department of Biology
1998 - 2004 Assistant Professor, University of South Florida Department of Biology
1995 - 1998 Assistant Professor: University of North Florida Dept. Natural Sciences
1992 - 1995 Postdoctoral: University of Maryland Center of Marine Biotechnology

CONSULTING and INDUSTRY POSITIONS

2007 Microbiology (MST) consultant: Cawthron Institute, New Zealand
2004 – current Microbiology (MST) consultant: Motley-Rice, LLC
1990 - 1991 Microbiology Consultant: Environmental Testing Services, Norfolk, VA
1987 - 1992 Microbiology Consultant: Jennings Laboratory, Norfolk, VA
1986 - 1987 Microbiologist: Jennings Laboratory, Norfolk, VA

HONORS and SCHOLARSHIPS (Recent)

2005 & 2006 Phi Kappa Phi Honor Society Scholar Award
2004 Phi Sigma Iota Honor Society
2005-2006 President, Southeastern Branch American Society for Microbiology.
2003 Margaret Green Outstanding Teaching Award: Southeastern Branch American Society for Microbiology

PROFESSIONAL ORGANIZATIONS

2004- International Water Association
2004- Phi Sigma Iota Honor Society
1999 - American Water Resource Association
1995 - Council on Undergraduate Research
1989 - Sigma Xi Scientific Honor Society
1989 - American Society for Microbiology

REFEREED PUBLICATIONS (selected; out of 27 total)

(Students and postdocs supervised by Harwood are bolded; ^a denotes corresponding author)

2008. **K. V. Gordon**, M. C. Vickery, A. DePaola, **C. Staley** and Valerie J. Harwood^a. Real-time PCR assays for quantification and differentiation of *V. vulnificus* strains in oysters and water. Appl. Env. Microbiol. 74:In press.
2007. **Brownell, M.B.**, V.J. Harwood^a, R.C. Kurz, **S.M. McQuaig**, J. Lukasik, and T.M. Scott. Confirmation of putative stormwater impact on water quality at a Florida beach by microbial source tracking methods and structure of indicator organism populations. Water Research. 41:3747-3757.
2007. Stoeckel, D.M. and V.J. Harwood^a. Performance, design, and analysis in microbial source tracking studies. Appl. Environ. Microbiol. 73:2405-2415.
2006. **Shannon M. McQuaig**, Troy M. Scott, Valerie J. Harwood^a, Samuel R. Farrah and Jerzy O. Lukasik. Novel method for the detection of human derived fecal pollution in environmental waters using a PCR based human polyomavirus assay. App. Environ. Microbiol. 72: 7567-7564.
2006. **M. A. Anderson**, J.E. Whitlock and V.J. Harwood^a. Diversity and Distribution of *Escherichia coli* Genotypes and Antibiotic-Resistant Phenotypes in Feces of Humans, Cattle and Horses Appl. Environ Microbiol. 72: 6914-6922.
2006. M. Chatzidaki-Livanis, M. A. Hubbard, **K.V. Gordon**, V. J. Harwood, and A.C. Wright. Genetic distinctions among clinical and environmental strains of *Vibrio vulnificus*. Appl. Environ. Microbiol. 72:6136-6141.
2006. A Cardoso, A.D. Levine, **B.S. Nayak** and V.J. Harwood. Lysimeter comparison of the role of waste characteristics in the formation of mineral deposits in leachate drainage systems. Waste Management Res. 24:560-572.
2005. **K.L. (Hood) Anderson**, J.E. Whitlock and V.J. Harwood^a. Persistence and differential survival of fecal indicator bacteria in subtropical waters and sediments. Appl. Environ. Microbiol. 71: 3041-3048.
2005. V. J. Harwood^a, A. D. Levine, T. M. Scott, **V. Chivukula**, J. Lukasik, S.R. Farrah and J.B. Rose. Validity of the indicator organism paradigm: pathogen reduction and public health protection in reclaimed water. Appl. Environ. Microbiol. 71: 3163-3170.
2005. D. F. Moore, V. J. Harwood^a, D. M. Ferguson, J. Lukasik, P. Hannah, M. Getrich and **M. Brownell**. Evaluation of antibiotic resistance analysis and ribotyping for identification of fecal pollution sources in an urban watershed. J. Appl. Microbiol. 99: 618-628.
2005. **S.D. Shehane**, V.J. Harwood, J.E. Whitlock and J.B. Rose. The influence of rainfall on the incidence of microbial fecal indicators and the dominant sources of fecal pollution in a Florida river. J. Appl. Microbiol. 98:1127-1136.
2004. V.J. Harwood^a, **N.E. Delahoya**, M.F. Kramer, J.E. Whitlock, J.R. Garey and D.V. Lim. Molecular confirmation of *Enterococcus faecalis* and *E. faecium* from clinical, fecal and environmental sources. Lett. Appl. Microbiol. 38:476-482.
2004. V. J. Harwood^a, **J.P. Gandhi** and A.C. Wright. Methods for isolation and confirmation of *Vibrio vulnificus* from oysters and environmental sources: a review. Journal of

Microbiological Methods. 59:301-316

2003. V.J. Harwood^a, B. Wiggins, C. Hagedorn, R.D. Ellender, J. Gooch, J. Kern, M. Sampadpour, A.C.H. Chapman, B.J. Robinson and B.C. Thompson. Phenotypic library-based microbial source tracking methods: efficacy in the California collaborative study. *J. Water Health* 01: 153-156.
2002. J.E. Whitlock, D. T. Jones and V. J. Harwood^a. Identification of the sources of fecal coliforms in an urban watershed using antibiotic resistance analysis. *Water Research* 36: 4265-4274.
2002. **J.M. Pisciotta**, D.F. Rath, P.A. Stanek, D.M. Flanery and V.J. Harwood^a. Marine bacteria cause false-positive results in the Colilert-18 rapid identification test for *Escherichia coli* in Florida waters. *Appl. Environ. Microbiol.* 68: 539-544.
2001. V. J. Harwood^a, M. Brownell, **W. Perusek** and J.E. Whitlock. Vancomycin-resistant *Enterococcus* spp. isolated from wastewater and chicken feces in the United States. *Appl. Environ. Microbiol.* 67: 4930-4933.
- 2001 **M. N. Harris**, J.D. Madura, L. Ming and V. J. Harwood^a. Kinetic and mechanistic studies of prolyl oligopeptidase from the hyperthermophile *Pyrococcus furiosus*. *J. Biol. Chem.* 22:19310 – 19317.
- 2000 V. J. Harwood^a, J. Whitlock and **V. H. Withington**. Classification of the antibiotic resistance patterns of indicator bacteria by discriminant analysis: use in predicting the source of fecal contamination in subtropical Florida waters. *Appl. Environ Microbiol.* 66: 3698-3704.

BOOK CHAPTERS

2007. V.J. Harwood. Assumptions and limitations of microbial source tracking methods. *In*: J. Santo-Domingo and M. Sadowsky. *Microbial Source Tracking*. ASM Press, Washington, D.C.

PEER-REVIEWED, PUBLISHED REPORTS

2004. J.B. Rose, S.R. Farrah, V.J. Harwood, A.D. Levine, J. Lukasik, P. Menendez and T.M. Scott. Reduction of pathogens, indicator bacteria and alternative indicators by wastewater treatment and reclamation processes. Report 00-PUM-2T. Water Environment Research Foundation, Alexandria, VA.

NONREFEREED PUBLICATIONS INCLUDING PROCEEDINGS AND PUBLISHED REPORTS (since 2001)

2007. T. Younos, J. Falkinham and V.J. Harwood. Pathogens in Natural and Engineered Water Systems: Emerging Issues. *Water Resources IMPACT*: In press.
2005. V.J. Harwood, T. Edge, D. Stoeckel, M. Molina and M. Jenkins. Assumptions and limitations of MST methods. *In* USEPA Guide Document on Microbial Source Tracking. United States Environmental Protection Agency, Cincinnati, OH. EPA/600/R-05/064
2005. V.J. Harwood and D.V. Lim. Real-Time Detection of Human Pathogens in the Guana-Tolamato-Matanzas National Estuarine Research Reserve. NOAA/UNH Cooperative

Institute for Coastal and Estuarine Environmental Technology (CICEET).

2003. A.D. Levine, T.M. Scott, V.J. Harwood and J.B. Rose. Keeping the bugs at bay. *Water Environ. Technol.* 15:63-66.
2002. A.D. Levine, M. R. McLaughlin, J.B. Rose, **V. Chivukula**, and V.J. Harwood. Factors influencing pathogen removal in wastewater reclamation and reuse facilities. *Disinfection 2002*; Water Environment Federation, Specialty Conference Series, February 17-19, St. Petersburg, FL.
2002. T.M. Scott, , M.R. McLaughlin, V.J. Harwood, **V. Chivukula**, A.D. Levine, A. Gennaccaro, J. Lukasik, S.R. Farrah, and J.B. Rose. Reduction of pathogens, indicator bacteria, and alternative indicators by wastewater treatment and reclamation processes. In *Proceedings of the Regional Symposium on Water Recycling in the Mediterranean Region*. Iraklio, Crete, Greece. September 26-29.
2001. V.J. Harwood. Detection and occurrence of indicator organisms and pathogens: Literature Review. *Water Environment Research* 73 (5):

ABSTRACTS and RESEARCH PRESENTATIONS SINCE 2005

(Students and postdocs supervised by Harwood are bolded)

2007. **C. Staley**, C.M. Wapnick and V.J. Harwood. Use of Indicator Organisms and Microbial Source Tracking to Identify Sources of Water Contamination. Southeast Stormwater Association Annual Fall Conference, Oct 24-26, Nashville TN.
2007. **C. Staley** and V.J. Harwood. Characterization of a Putative Virulence Marker in *Vibrio vulnificus* Unique to Clinically-Associated Strains. American Society for Microbiology General Meeting, May 20-24, Toronto, Canada.
2007. **P.W. Koch** and V.J. Harwood. Decay Rates of Indicator Organisms in a Hydrodynamically Active Flume System. American Society for Microbiology General Meeting, May 20-24, Toronto, Canada.
2007. A. Korajkic and V.J. Harwood. Survival of the Fittest: Proliferation of *Escherichia coli* Strains in Secondary Habitats. American Society for Microbiology General Meeting, May 20-24, Toronto, Canada.
2007. S.M. McQuaig, M.B. Brownell and V.J. Harwood. Application of Microbial Source Tracking Methods for Human-Associated Sewage at Sites Suspected of Contamination by Compromised Wastewater Handling Systems. American Society for Microbiology General Meeting, May 20-24, Toronto, Canada.
2007. Cheryl M. Wapnick, Valerie J. Harwood, Asja Korajkic and Donald R. Deis. A Guide for Assessing Fecal Contamination in Northeast Florida Tributaries. Southeast Stormwater Association Fall Meeting, Oct 24-26, Nashville, TN
2006. **C. Staley** and V.J. Harwood. Characterization of a Putative Virulence Marker in *Vibrio vulnificus* Unique to Clinically-Associated Strains. Southeastern Branch ASM Nov 2-4 Atlanta GA
2006. **B.S. Nayak**, A.D. Levine, **E. Goh** and V.J. Harwood. Microbial Population Development

- in Landfill Leachate Lysimeters in the Presence or Absence of Biosolids Southeastern Branch ASM Nov 2-4 Atlanta GA
2006. **S.M. McQuaig, M.B. Brownell** and V.J. Harwood. Microbial source tracking case studies: indicator organism concentrations and human associated markers of fecal pollution at sites suspected of point source contamination Southeastern Branch ASM Nov 2-4 Atlanta GA
2006. **K.V. Gordon** and V.J. Harwood. 16S rRNA-Based Typing of Clinical *Vibrio vulnificus* Isolates with two Real-Time PCR Assays. Southeastern Branch ASM Nov 2-4 Atlanta GA
2006. **C. Staley** and V.J. Harwood. *Vibrio vulnificus* Population Distribution in Oyster Tissues Using BOX-PCR. American Society for Microbiology General Meeting, May 21-25, Orlando, FL.
2006. **A. Korajkic, M. Brownell** and V.J. Harwood. Library-based and Nonlibrary-based Methods of Microbial Source Tracking to Determine Pollution Sources in a Rural Florida County. American Society for Microbiology General Meeting, May 21-25, Orlando, FL.
2005. V.J. Harwood and **K.V. Gordon**. Real time PCR applications for water quality testing of pathogens and indicators organisms. 50th Annual Atlantic Fisheries Technology Conference, Norfolk, VA, Nov 6-9.
2005. V.J. Harwood. Microbial source tracking: Assumptions, limitations and future prospects. 2nd Annual Sustainable Beaches Conference, St. Petersburg, FL, Oct 31-Nov 2.
2005. V. J. Harwood, **S.D. Shehane, M. Brownell** and T. Scott. . Microbial Source Tracking: A polyphasic approach in three Florida waters. 2nd Annual Sustainable Beaches Conference, St. Petersburg, FL, Oct 31-Nov 2.
2005. **K.V. Gordon** and Valerie J. Harwood. Virulence analysis of *Vibrio vulnificus* using a SYBR Green mediated real-time PCR assay. Southeastern Branch American Society for Microbiology, St. Pete Beach, FL, Oct 27-29.
2005. **A. Korajkic, M.J. Brownell**, and V.J. Harwood. Library-based and nonlibrary-based methods of microbial source tracking to determine pollution sources in a rural Florida county. Southeastern Branch American Society for Microbiology, St. Pete Beach, FL, Oct 27-29.
2005. **C.M. Staley** and V.J. Harwood. Analysis of *Vibrio vulnificus* populations in oyster tissues using BOX-PCR. Southeastern Branch American Society for Microbiology, St. Pete Beach, FL, Oct 27-29.
2005. **B.S. Nayak**, A.D. Levine and V.J. Harwood. Investigating the role of archaeal and bacterial populations in the clogging of landfill leachate collection systems using laboratory-scale lysimeters. Southeastern Branch American Society for Microbiology, St. Pete Beach, FL, Oct 27-29.
2005. **L. A. Ball** and V.J. Harwood. Growth characteristics of environmental and clinical strains of *Enterococcus faecalis* in different media. Southeastern Branch American Society for Microbiology, St. Pete Beach, FL, Oct 27-29.
2005. V.J. Harwood, **L. Ball**, D.F. Moore and M.H. Zhouwandai. Differential survival of *Enterococcus faecalis* strains in seawater: A case of adaptive trade-offs? International

Water Association, Swansea, Wales (U.K.), Sept 4-8.

- 2005. **M. J. Brownell, M. J. Dontchev, S. D. Shehane**, T. M. Scott, J. Lukasik, R. C. Kurz and V. J. Harwood. Investigation of microbial fecal pollution of a pristine Florida beach by BOX-PCR of *Escherichia coli* and enterococci and PCR amplification of host-Specific markers. American Society for Microbiology General Meeting, June 5-9, Atlanta, GA.
- 2005. **M. J. Dontchev**, D. L. Wingfield, T. A. Cutting, P. T. Amuso, A. C. Cannons, and V. J. Harwood. Beach water quality and microbial source tracking library validation: consideration of *E. coli* population diversity. American Society for Microbiology General Meeting, June 5-9, Atlanta, GA.
- 2005. **K.V. Gordon** and V.J. Harwood. A SYBR green mediated real-time PCR assay differentiates *Vibrio vulnificus* strains based on virulence potential. American Society for Microbiology General Meeting, June 5-9, Atlanta, GA.
- 2005. **B. Nayak**, A.D. Levine and V.J. Harwood. Investigation of archaeal and bacterial community structure in landfill leachate lysimeters by denaturing gradient gel electrophoresis (DGGE). American Society for Microbiology General Meeting, June 5-9, Atlanta, GA.
- 2005. **S. D. Shehane**, R. M. Ulrich, T. Scott, V. J. Harwood. Microbial source determination in an anthropogenically impacted and an unimpacted Florida watershed utilizing host-specific genetic markers. American Society for Microbiology General Meeting, June 5-9, Atlanta, GA.
- 2005. J. T. Lisle, **K. V. Gordon** and V. J. Harwood. *Vibrio spp.* within coral mucous provide protective activity against potential coral disease pathogens. American Society for Microbiology General Meeting, June 5-9, Atlanta, GA.
- 2005. V.J. Harwood, G. Huxel and F. Thomas. Public Health Indicators: Integration into the Tampa Bay Model. USGS Integrated Science Meeting. Feb 8-9, Gulfport, FL

INVITED SPEAKER (Since 2004)

- 2008. Microbial Source Tracking: Toolbox or Pandora's Box for Determining Sources of Fecal Pollution in Florida Waters? NSF-NIEHS Oceans & Human Health Center, University of Miami Rosenstiel School of Marine and Atmospheric Sciences, Miami FL Jan 18.
- 2007. Practical Strategies for Microbial Source Tracking. Florida Stormwater Association Fall Meeting, Dec 5-7, Orlando FL.
- 2007. Adventures in Microbial Source Tracking. Florida Environmental Health Association, Jacksonville, FL June 28.
- 2007. A Decade of Water Quality Research in Florida. Department of Biology, University of North Florida, Jacksonville FL. April 13.
- 2007. Microbial Source Tracking: Promise, Reality, and Potential. Cawthron Institute, Nelson, New Zealand March 15, 2007
- 2007. Validation of Performance in Library-Dependent Microbial Source Tracking Methods. USDA-CSREES National Water Conference, Savannah GA, Jan 28 – Feb 1.

- 2006. Selection Criteria and Field Validation for a Gulf of Mexico Microbial Source Tracking Study (with D. Stoeckel and S. Wang). USEPA Region IV MST Workshop, Biloxi, MS, Dec 6 – 8.
- 2006. The Case for *Helicobacter pylori* as a Waterborne Pathogen. Florida Section American Water Works Association Conference, Orlando FL, Nov 26-30. (Session Moderator)
- 2006. What's in Your Water? Pathogen Detection and Water Quality Monitoring for the 21st Century. **Keynote Speaker**, Virginia Water Science and Technology Symposium, Roanoke, VA Nov 1-3.
- 2006. State of the Science in Microbial Source Tracking. Florida Environmental Health Association, Sarasota, FL July 13.
- 2006. State of the Science in Microbial Source Tracking: What Environmental Managers and Public Health Practitioners Should Know. National Environmental Health Association, San Antonio, TX, June 27.
- 2005. Genetic Diversity and Virulence Potential of *Vibrio vulnificus*. Old Dominion University Dept. Biology, Norfolk, VA, Oct 7.
- 2005. Microbial Source Tracking in the Age of TMDLs. Florida Stormwater Association Annual Conference, Sanibel Island FL June 30 – July 1.
- 2005. Microbial Source Tracking. FDEP/FDOH Promoting Public Health through Safe Water Conference, Orlando, FL Jan 19-20.
- 2004. Sediments as a Source and Confounding Element in MST. USEPA Region IV Workshop, Biloxi, MS Nov 11-13
- 2004. Importance of and Approaches for Validating MST Results. USEPA Region IV Workshop, Biloxi, MS Nov 11-13 (with D.M. Stoeckel)
- 2004. Microorganisms: The Good, the Bad and the Ugly. Hillsborough County Lake, Pond and Stream Symposium. Tampa, FL, Oct 15.
- 2004. Microbial Source Tracking: Current and Prospective Approaches. Midwest Environmental Enforcement Association and Southern Environmental Enforcement Network, Memphis, TN April 27-29.
- 2004. Survival of Indicator Organisms in Water Column vs. Sediments: Implications for Sampling Strategies. Sustainable Beaches Summit, Destin, FL March 30-31.
- 2004. Implications of Microbial Diversity for Library-based Source Tracking Methodologies and Carbon Source Utilization as a MST Tool. International Workshop on Methods of Tracing Sources of Faecal Contamination in Bathing and Shellfish Waters. Guildford, England, Jan 12-13.

GRANT FUNDING: ONLY AS PRINCIPLE INVESTIGATOR (since 2002)

- 2007-2010. Validation and Field Testing of Microbial Source Tracking Methodologies in the Gulf of Mexico US Environmental Protection Agency (Gulf of Mexico Program). **\$444,000 to Harwood; \$875,907 total** with Co-PIs at UWF & USM
- 2007-2008. Rapid concentration and quantification of bacteria and viruses from marine waters. NOAA-CICEET **\$68,974 to Harwood; \$145,893 total** with Co-PI D.V. Lim at USF

- 2007-2008 Fecal BMAP Hillsborough River Phase II, Level 1. Florida Department of Environmental Protection **\$111,000.**
- 2007-2008. Identification of Major Sources of Bacterial Loading to Deep Creek and the Northern Coastal Basin. St. Johns River Water Management District. **\$40,000.**
2007. Further Investigation of the Sources of Fecal Indicator Bacteria in Wakulla County, Florida. Florida Department of Health. **\$77,931**
- 2006-2007. Analysis of Sources of Fecal Indicator Bacteria Causing Beach Closures in Hillsborough County, Florida. Environmental Protection Commission of Hillsborough County. **\$125,000.**
- 2006-2007. P.I.: A.D. Levine. Development of a Guidance Document for Applying Sound Statistics for Exploring, Interpreting, and Presenting Microbiological Data Associated with Reclaimed Water Systems, Project role: co-PI with A.D. Levine, Civil & Environmental Engineering. \$43792 to Harwood.
- 2006-2007. Identification of Major Sources of Bacterial Loading to the Shellfish Harvesting Waters in the Northern Coastal Basin. St. Johns River Water Management District. **\$40,000.**
- 2005-2006. JEA Tributary Pollution Assessment. Jacksonville Electrical Authority. **\$46,240.**
- 2004-2005. Identification of the Sources of Fecal Indicator Bacteria in Wakulla County, Florida: A Research Proposal. Florida Dept. Environmental Protection. **\$70,140.**
- 2004-2005. Microbial Source Tracking: Tools for Refining Total Maximum Daily Load Assessments. Florida Dept. Environmental Protection. **\$295,500 (\$156,000 to Harwood).**
- 2004-2005. Sarasota County, FL. Siesta Key Beach Water Quality Sampling to Determine Sources of Fecal Indicator Bacteria. **\$14,000.**
2004. Long-lasting Effects of a Sewage Spill in McKay Creek & Implications for Human Health. Pinellas County Utilities. **\$30,600.**
- 2003-2004. Bacteria in Urban Tributaries of the St. Johns River, Jacksonville Florida. Florida Department of Environmental Protection. **\$100,000.**
- 2001-2004. The Use of an Automated Ribotyping Assay for Identification and Source Tracking of Microbial Water Quality Indicators. US Environmental Protection Agency. **\$110,000.**
- 2001-2004. Bacterial Source Tracking Methods to Identify Nonpoint Fecal Pollution in Agricultural Watersheds. US Department of Agriculture. Co-PIs: Bruce Wiggins (James Madison University) and Charles Hagedorn (Virginia Tech). **\$310,000.**
- 2001-2004. Understanding the Sources and Fate of Conventional and Alternative Indicator Organisms in Subtropical Waters. US Environmental Protection Agency. **\$388,000**
- 2001-2003. Determination of the Sources of Fecal Pollution to Orange County, California by Antibiotic Resistance Analysis and Ribotyping. Orange County, Cal. Health Agency. **\$131,000.**
- 2001-2003. Real-Time Detection of Human Pathogens and Identification of the Sources of Indicator Bacteria in the Guana-Tolomato-Matanzas National Estuarine Research Reserve. Cooperative Institute for Coastal and Estuarine Environmental Technology. Co-PI: Daniel V. Lim (USF). **\$198,400.**
- 2001-2002. Upper Hillsborough River Contamination Assessment. Hillsborough County, FL

\$19,680.

2001-2002. Bacterial Source Tracking Using Antibiotic Resistance Analysis in the South Platte River, Denver, CO. City of Denver, CO. **\$18,000.**

2002. Bacterial Source Tracking of Fecal Coliforms from Stormwater by Antibiotic Resistance Analysis in Albuquerque, NM. City of Albuquerque, NM. **\$51,295.**

SCIENTIFIC SERVICE

2007 USEPA International Experts Meeting for Microbial Source Tracking July 9 – 11

2006 – Editorial Board: Applied and Environmental Microbiology

2004-2005 President, Southeastern Branch American Society for Microbiology

2004 Participation in workshops and lead writer on USEPA Guide Document for Microbial Source Tracking

2003 President-elect, Southeastern Branch American Society for Microbiology.

2002-2004. Policy Committee, Southeastern Branch American Society for Microbiology.

2001, 2002, 2004. Convener, Environmental Microbiology Session, Southeastern Branch American Society for Microbiology.

2001 – 2003 Pinellas County Water Technology Advisory Group

1996 - 2000 Guana, Talamato, Matanzas Shellfish and Water Quality Task Force

Ad Hoc Manuscript Reviews for: Applied and Environmental Microbiology, Letters in Applied Microbiology, Journal of Applied Microbiology, Environmental Science and Technology, Water Research, Journal of Environmental Quality

SERVICE ON GRANT PANELS

2005 US Department of Agriculture Small Business Innovative Research (SBIR) **panel manager**

2004 US Department of Agriculture Small Business Innovative Research (SBIR)

2003 New York Sea Grant

2003 US Department of Agriculture Small Business Innovative Research (SBIR)

2002 Cooperative Institute for Coastal and Estuarine Environmental Technology (NOAA/UNH).

AD HOC REVIEWER

Journals: Environmental Science and Technology, Water Research, Journal of Applied Microbiology

Grants: Australian Antarctic Program, South Africa Medical Research Council, U.S. Environmental Protection Agency, U.S. Department of Agriculture

GRADUATE STUDENTS (completed degree)

- 2006 Miriam Brownell. Masters degree in Microbiology. Currently employed as Research Associate at USF Dept. Biology
- 2005 Vasanta Chivukula Ph.D. in Biology
- 2004 Robert Ulrich. Masters degree in Microbiology. Currently employed as Research Associate at USF Marine Science.
- 2003 Matthew Anderson. Masters degree in Microbiology. Currently employed University of MD Center of Marine Biotechnology.
- 2003 Kimberly L. Hood. Masters degree in Microbiology. Currently in Ph.D. program, University of Maryland (began Fall 2003).
- 2001 John M. Pisciotta Masters degree in Biology.
Ph.D. from Johns Hopkins University, Baltimore, MD.
- 2001 Michael Harris (co-Major Professor) Ph.D. in Chemistry.
Currently postdoctoral research associate at Los Alamos National Laboratories.

GRADUATE STUDENTS (CURRENT)

	Degree	Year began
Michael Garman (co-chair w/ Jim Garey) (candidate)	Ph.D.	2001
Katrina Gordon	Ph.D.	2002
Bina Nayak	Ph.D.	2003
Brian Badgely	Ph.D.	2004
Asja Korajkic	Ph.D.	2005
Shannon McQuaig	Ph.D.	2005
Andrew "Ross" Myer	Ph.D.	2005
Phoebe Koch	Masters	2006